## **ENVIRONMENTAL CHEMISTS**

Date of Report: 10/24/02 Date Received: 10/10/02

Project: Metro Self Monitor, PO# 68841

Date Extracted: 10/22/02 Date Analyzed: 10/22/02

# RESULTS FROM THE ANALYSIS OF THE WATER SAMPLE FOR TOTAL METALS BY INDUCTIVELY COUPLED PLASMA (ICP) (METHOD 6010)

Results Reported as mg/L (ppm)

| Sample ID     | <u>Ch</u> ı | <u>comium</u> | Copper | <u>Nickel</u> | Zinc     |
|---------------|-------------|---------------|--------|---------------|----------|
| Laboratory ID |             |               |        |               |          |
| M68841        |             | 1.6           | 1.5    | 1.8           | 0.05     |
| 210081-01     |             |               |        |               | aitainin |
|               |             |               |        |               |          |
| Method Blank  | <           | 0.05          | < 0.05 | < 0.05        | < 0.05   |

## **ENVIRONMENTAL CHEMISTS**

Date of Report: 10/24/02 Date Received: 10/10/02

Project: Metro Self Monitor, PO# 68841

# QUALITY ASSURANCE RESULTS FROM TOTAL METALS BY INDUCTIVELY COUPLED PLASMA (ICP) (METHOD 6010)

Laboratory Code: 210143-01 (Duplicate)

| venluaring fan ele |            |        |        | Kelative      |            |
|--------------------|------------|--------|--------|---------------|------------|
| 연구를 가는 것 같아 사이를 받는 | Reporting  | Sample | Duplic | ate Percent   | Acceptance |
| Analyte            | Units      | Result | Resu   | lt Difference | Criteria   |
| Chromium           | mg/L (ppm) | 0.51   | 0.53   | 4             | 0-20       |
| Copper             | mg/L (ppm) | 0.60   | 0.61   | 2             | 0-20       |
| Nickel             | mg/L (ppm) | 0.55   | 0.56   | 2             | 0-20       |
| Zinc               | mg/L (ppm) | 0.06   | 0.11   | a             | 0-20       |
|                    | B. — (P.B) | 0.00   |        |               | V -V       |

Laboratory Code: 210143-01 (Matrix Spike)

| Analyte  | Reporting<br>Units | Spike<br>Level | Sample<br>Result | % Recovery<br>MS | Acceptance<br>Criteria |  |  |
|----------|--------------------|----------------|------------------|------------------|------------------------|--|--|
| Chromium | mg/L (ppm)         | 2              | 0.51             | 89               | 80-120                 |  |  |
| Copper   | mg/L (ppm)         | 2              | 0.60             | 90               | 80-120                 |  |  |
| Nickel   | mg/L (ppm)         | 4              | 0.55             | 89               | 80-120                 |  |  |
| Zinc     | mg/L (ppm)         | 2              | 0.06             | 91               | 80-120                 |  |  |

Laboratory Code: Laboratory Control Sample

|          | Reporting  | Spike S | % Recovery | % Recovery | Acceptance | RPD        |
|----------|------------|---------|------------|------------|------------|------------|
| Analyte  | Units      | Level   | LCS        | LCSD       | Criteria   | (Limit 20) |
| Chromium | mg/L (ppm) | 2       | 95         | 96         | 80-120     | 1          |
| Copper   | mg/L (ppm) | 2       | 92         | 94         | 80-120     | 2          |
| Nickel   | mg/L (ppm) | 4       | 94         | 96         | 80-120     | 2          |
| Zinc     | mg/L (ppm) | 2       | 94         | 94         | 80-120     | 0          |

a - The analyte was detected at a level less than five times the reporting limit. The RPD results may not provide reliable information on the variability of the analysis.

### **ENVIRONMENTAL CHEMISTS**

James E. Bruya, Ph.D. Charlene Morrow, M.S. Yelena Aravkina, M.S. Bradley T. Benson, B.S. Kurt Johnson, B.S. 3012 16th Avenue West Seattle, WA 98119-2029 TEL: (206) 285-8282 FAX: (206) 283-5044 e-mail: fbi@isomedia.com

October 24, 2002

### DUPLICATE COPY

## **INVOICE # 02ACU1024-1**

Accounts Payable Alaskan Copper Works 628 South Hanford Seattle, WA 98134

RE: Project Metro Self Monitor, PO# 68841 - Results of testing requested by Gerry Thompson for material submitted on October 10, 2002.

FEDERAL TAX ID #(b) (6)

|   | . )   |                      |           |             |            |                |                     |                      |              |               |         |                                       |                             |                 |                | 10              |            |                    |         | _           | are a                             |
|---|---|----------------------|-----------|-------------|------------|----------------|---------------------|----------------------|--------------|---------------|---------|---------------------------------------|-----------------------------|-----------------|----------------|-----------------|------------|--------------------|---------|-------------|-----------------------------------|
| 121008  |   |                      |           | SAMPLE      | CHAIN O    | F <sub>C</sub> | US                  | TO                   | DY           | 2             |         |                                       |                             |                 | ^              | <b>પ</b> ∙{<br> | _/         | 0/19               | 02      | K.          | ځ-                                |
|   | nd Report To G. Thompson  mpany Alaskan Coppen works  PRO |                      |           |             |            | lure           |                     |                      |              |               |         |                                       |                             | $\vec{\exists}$ |                |                 | ADOLINI    |                    |         |             |                                   |
| Send Report To Col.                             | PROJE   | PROJECT NAME/NO. PO# |           |             |            |                |                     |                      |              |               |         | TURNAROUND TIME  ☐ Standard (2 Weeks) |                             |                 |                |                 |            |                    |         |             |                                   |
| Company / LASKA                                 | 118   | pen C                | uores.    | ME          | Tko Sel    | P              | n                   | ion,                 | lac          |               | n       | 168                                   | 841                         |                 |                | RUSI<br>ush ch  |            | s author           | rized b | y:          |                                   |
| Address 628 S.                                  | 110   | wend                 | 24        |             |            |                |                     |                      |              |               | <u></u> |                                       |                             |                 | _              |                 |            | LE DIS             |         |             |                                   |
| City, State, ZIP_SEATT                          | t   | Lus 5                | 8134      | REMAI       | KNS        |                |                     |                      |              |               |         |                                       |                             |                 |                | Dispo           | ose a      | fter 30 d          |         | L           | Det.                              |
| Phone # 206-782-8374                            | Fax   | # 206-78             | 2.4508    |             |            |                |                     |                      |              |               |         |                                       |                             |                 |                |                 |            | mples<br>vith inst | ructio  | ns          |                                   |
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|   |   |                      |           |             |            |                | ne                  | 11B                  |              |               |         | 3                                     |                             |                 |                |                 |            |                    |         |             | - ·                               |
| a l m   | Lab   | Date                 | Time      | G 1 m       | # of       | TPH-Diesel     | <b>PPH-Gasoline</b> | <b>BTEX by 8021B</b> | VOCs by 8260 | SVOCs by 8270 | ည်      | 2/2                                   |                             |                 |                |                 |            |                    | NT 4    |             |                                   |
| Sample ID                                       | ID  | Sampled              | Sampled   | Sample Type | containers | PH-I           | H-G                 | XX by                | Cs p         | )Cs ]         | HFS     | .3                                    | `                           |                 |                |                 |            |                    | Notes   |             | 2.0                               |
| <u> </u>  | İ   |                      |           |             |            | Т              | $\mathrm{TP}$       | BTE                  | ΛO           | SV            |         | 8                                     | /                           |                 |                |                 |            |                    |         |             |                                   |
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|   | 1 1   | 1.7.2                | , , , , , |             |            |                |                     |                      |              |               |         |                                       |                             |                 |                |                 |            |                    |         |             |                                   |
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|   | <u> </u>  |                      |           |             |            |                |                     |                      |              |               |         |                                       |                             |                 |                |                 |            |                    |         |             |                                   |
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| Friedman & Bruya, Inc.<br>3012 16th Avenue West | Relingui  | //SIGN               | IATURE    | _>          | , A        | RIN'           | 1                   |                      |              |               |         |                                       | $\frac{CC}{\sqrt{\Lambda}}$ | MPA             | PANY DATE TIME |                 |            |                    |         |             | 1                                 |
| Seattle, WA 98119-2029                          | Received  | 8/                   | 7         |             | 9. A       | ı – )          | , /                 | 0                    |              | <u>ر</u>      |         |                                       | ング                          |                 | , 77           |                 |            |                    |         | SYA,        | 4                                 |
| Ph. (206) 285-8282                              | Relinquished by:  |                      |           |             | Luine      | 4.4            | 10                  | Of                   | 20           | Y             |         | 1                                     | 5/                          | 17              | <i>C</i> .     | -               | $\psi_{-}$ | +4                 |         | 1           |                                   |
| Fax (206) 283-5044                              | Received by:  |                      |           |             |            |                |                     |                      |              |               |         | ·                                     |                             |                 |                |                 | -          |                    | +       | ******      | $\frac{1}{2}$                     |

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### **ENVIRONMENTAL CHEMISTS**

James E. Bruya, Ph.D. Charlene Morrow, M.S. Yelena Aravkina, M.S. Bradley T. Benson, B.S. Kurt Johnson, B.S. 3012 16th Avenue West Seattle, WA 98119-2029 TEL: (206) 285-8282 FAX: (206) 283-5044 e-mail: fbi@isomedia.com

October 24, 2002

Gerry Thompson, Project Manager Alaskan Copper Works 628 South Hanford Seattle, WA 98134

Dear Mr. Thompson:

Included are the results from the testing of material submitted on October 10, 2002 from your Metro Self Monitor, PO# 68841 project. Any samples that may remain are currently scheduled for disposal in 30 days. If you would like us to return your samples or arrange for long term storage at our offices, please contact us as soon as possible.

We appreciate this opportunity to be of service to you and hope you will call if you should have any questions.

Sincerely,

FRIEDMAN & BRUYA, INC.

Michael Erdahl Project Manager

Enclosures ACU1024R.DOC